

Attorney's Docket No.: 06666-032001

## Remarks

Reconsideration and allowance of the above referenced application are respectfully requested.

Initially, the undersigned requests withdrawal of the finality of the official action mailed June 2, 2005. With all due respect, it is believed that the action was improperly made final. No changes at all were made to the independent claims 1, 19 or 29 in the previous amendment dated March 15, 2005. However, the rejection presents what is called a new ground of rejection, see item 10 on page 16 of the official action. The rejection alleges the applicant's actions necessitated the new ground of rejection. This is incorrect, since no changes were made to the independent claims.

With all due respect, therefore, MPEP 706.07a would mandate that this rejection should not have been made final. Withdrawal of the finality is respectfully requested.

Each of the independent claims are amended herewith to recite the specific characteristics of the crossed inverse quasi groups. These specific characteristics were not taught or suggested by any of the cited prior art. Admittedly, Seheidt et al. teaches an encryption system, but the rejection admits that Seheidt et al. does not use a nontrivial cross inverse quasi

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group. The teaching of the cross inverse quasi group is allegedly found in Masters. Rather than relying on the inherent definition of crossed inverse quasigroup, this definition has been added to each of the independent claims. The techniques disclosed in Masters do not meet these characteristics. The matrices in Masters are not "groups" since they do not support "an operation \* between any two elements in the group, the result of the operation is also in the group". They also do not meet the function that "for every M, as K takes on key values, the resulting values of the function C are all distinct" and, they do not allow the permutation as claimed. This is simply not taught or suggested by Masters.

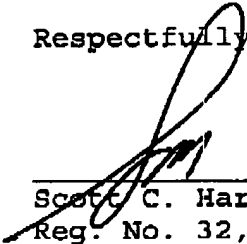
Masters does teach matrix manipulation, and column 18 of Masters describes that the transform is invertible. However, an invertible transform is entirely different than a permutation on the key space of a "group". In matrix manipulation, a matrix can be used, and then the inverse of that matrix can be used to invert the transform. This is very different than what is claimed, where the keyspace can be permuted. Masters must invert the transform to reverse the process. As defined by the claims, they can be permuted without matrix inversion. Hence, this produces a significant advantage over the matrix inversion techniques disclosed in Masters.

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It is believed that all of the pending claims have been addressed in this paper. However, failure to address a specific rejection, issue or comment, does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above are not intended to be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

Applicant asks that all claims be allowed. Applicant believes no fee is due, however, please apply any other charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

Date: 9/8/05  
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